

## CLAIMS

What I claim as my invention is:

1. A method and system for creating a relationship model and dependency hierarchy for delivery and management of technology components as they relate to, and impact, specific business processes.

2. A method as in claim 1, further including:

(a) The Business Technology Relationship Model (BTRM) consists of 13 layers.

(b) The vertical placement of the BTRM layers is constant and static.

(c) The relationship between BTRM layers is constant and static.

(d) The BTRM represents a series of dependencies, with each layer dependent on the layer below it.

(e) BTRM layers 1 through 3 are reserved for business abstraction.

(f) BTRM layers 4 through 13 are reserved for technical infrastructure abstraction.

3. A method as in claim 2, wherein there are 13 Layers on the BTRM and they include:

(a) Business Organization Object Layer 1

- (b) Business Unit Object Layer 2
- (c) Business Process Object Layer 3
- (d) Mechanism Object Layer 4
- (e) Client Object Layer 5
- (f) Input Device Object Layer 6
- (g) Shared Infrastructure Services Object Layer 7
- (h) Application Object Layer 8
- (i) Shared Data Storage Object Layer 9
- (j) Server Object Layer 10
- (k) Network Object Layer 11
- (l) Shared Network Infrastructure Object Layer 12
- (m) Security Device Object Layer 13

4. A method as in claim 2, further including:

- (a) BTRM is the framework for the BTRM Dependency / Impact Hierarchy.

(b) The BTRM Dependency / Impact Hierarchy represents the recursive identification and documentation of technical infrastructure objects traversing down the BTRM as they relate to a specific business process.

(c) Modeling of all dependencies between layers on the BTRM Dependency / Impact Hierarchy is done vertically, and no horizontal dependencies exist in the BTRM Dependency / Impact Hierarchy.

(d) On the BTRM Dependency / Impact Hierarchy, Business layers are modeled above technology infrastructure layers.

5. A method as in claims 2 or 4, in which a Bridged Common Object Layer contains a subset of BTRM layers, including a discreet Dependency / Impact Hierarchy within the Bridged Common Object Layer.

6. A method as in claim 5 further including:

(a) Layer 7 of the BTRM, Shared Infrastructure Services Object Layer, is a Bridged Common Object Layer containing a discreet Dependency / Impact Hierarchy subset of BTRM Model Layers 8 through 13.

(b) Layer 9 of the BTRM, Shared Data Storage Object Layer, is a Bridged Common Object Layer containing a discreet Dependency / Impact Hierarchy subset of BTRM Model Layers 7 through 13.

(c) Layer 12 of the BTRM, Shared Network Object Layer, is a Bridged Common Object Layer containing a discreet Dependency / Impact Hierarchy subset of BTRM Model Layers 11 through 13.

7. A method as in claim 4, further including:

- (a) Objects within the BTRM Dependency / Impact Hierarchy represent individual business or technical infrastructure components or groups of business or technical infrastructure components.
- (b) The placement of objects on the BTRM Dependency / Impact Hierarchy is constant and static.
- (c) The relationship between objects on the BTRM Dependency / Impact Hierarchy is constant and static.
- (d) Infrastructure objects modeled at the top of a BTRM Dependency / Impact Hierarchy are dependent on those objects modeled below.
- (e) On the BTRM Dependency / Impact Hierarchy, Business objects are modeled above technology infrastructure objects.
- (f) There is no limit to the number of objects on the BTRM Dependency / Impact Hierarchy.
- (g) There is no limit to the number of objects within a specific layer on the BTRM Dependency / Impact Hierarchy.
- (h) The placement of objects on the BTRM Dependency / Impact Hierarchy persistently reflects dependency, and may or may not reflect data flow.

8. A method as in claim 7, in which a Business Organization Object represents an individual business organization object or group of business organization objects.

9. A method as in claim 8, further including:

(a) On the BTRM Dependency / Impact Hierarchy, the Business Organization Object is the upper -most business object of the abstracted business layers 1 through 3.

(b) All other business objects are modeled below a Business Organization Object.

(c) On the BTRM Dependency / Impact Hierarchy, a Business Organization Object is modeled above a Business Unit Object.

(d) On the BTRM Dependency / Impact Hierarchy, a Business Organization Object is dependent upon a Business Unit Object.

10. A method as in claim 7, in which a Business Unit Object reflects an individual business unit object or group of business unit objects.

11. A method as in claim 10, further including:

(a) On the BTRM Dependency / Impact Hierarchy, a Business Unit Object is modeled below a Business Organization Object.

(b) On the BTRM Dependency / Impact Hierarchy, a Business Unit Object is modeled above a Business Process Object.

(c) On the BTRM Dependency / Impact Hierarchy, a Business Unit Object is dependent upon a Business Process Object.

12. A method as in claim 7, in which a Business Process Object reflects an individual business process object or group of business process objects.

13. A method as in claim 12, further including:

(a) On the BTRM Dependency / Impact Hierarchy, a Business Process Object is modeled below a Business Unit Object.

(b) On the BTRM Dependency / Impact Hierarchy, a Business Process Object is modeled above a Mechanism Object.

(c) On the BTRM Dependency / Impact Hierarchy, a Business Process Object is dependent upon a Mechanism Object.

14. A method as in claim 7, in which a Mechanism Object represents an individual tool or a technology that supports a specific business process.

15. A method as in claim 14, further including:

(a) On the BTRM Dependency / Impact Hierarchy, the Mechanism Object is the upper -most technical object of the abstracted technical infrastructure layers 4 through 13.

(b) All other technical infrastructure objects are modeled below the Mechanism Object Layer.

(c) On the BTRM Dependency / Impact Hierarchy, the Mechanism Object is modeled below the Business Process Object.

(d) On the BTRM Dependency / Impact Hierarchy, the Mechanism Object is modeled above the Client Object.

(e) On the BTRM Dependency / Impact Hierarchy, the Mechanism Object is dependent upon the Client Object.

16. A method as in claim 7, in which the Client Object represents an application user interface executing at a user input device.

17. A method as in claim 16, further including:

(a) On the BTRM Dependency / Impact Hierarchy, the Client Object is modeled below the Mechanism Object.

(b) On the BTRM Dependency / Impact Hierarchy, the Client Object is modeled above the Input Device Object.

(c) On the BTRM Dependency / Impact Hierarchy, the Client Object is dependent upon the Input Device Object.

18. A method as in claim 7, in which the Input Device Object represents an individual physical device used for the input, viewing, or manipulation of data and programs by a user.

19. A method as in claim 18, further including:

(a) On the BTRM Dependency / Impact Hierarchy, the Input Device Object is modeled below the Client Object.

(b) On the BTRM Dependency / Impact Hierarchy, the Input Device Object is modeled above the Application Object.

(c) On the BTRM Dependency / Impact Hierarchy, the Input Device Object is dependent upon the Application Object.

(d) When the BTRM Dependency / Impact Hierarchy includes the abstraction of the Shared Infrastructure Services Object Layer, the Input Device Object is also modeled above the Shared Infrastructure Services Object.

(e) When the BTRM Dependency / Impact Hierarchy includes the abstraction of the Shared Infrastructure Services Object Layer, the Input Device Object is also dependent upon the Shared Infrastructure Services Object.

20. A method as in claim 7, in which the Shared Infrastructure Services Object represents technical services used by an Input Device Object for functionality such as network addressing, network authentication, and software distribution.

21. A method as in claim 20 wherein, on the BTRM Dependency / Impact Hierarchy, the Shared Infrastructure Services Object is modeled below the Input Device Object.

22. A method as in claims 5 or 20 further including:



(a) The Shared Infrastructure Services Object Layer is considered a Bridged Common Object Layer.

(b) On the BTRM Dependency / Impact Hierarchy, the Shared Infrastructure Services Object Layer contains a discreet Dependency / Impact Hierarchy subset of Model Layers 8 through 13 and therefore, is dependent upon the subset layers within the Shared Infrastructure Services Object Layer.

23. A method as in claim 7, in which an Application Object represents software, operating system, program, and or data.

24. A method as in claim 23, further including:

(a) On the BTRM Dependency / Impact Hierarchy, the Application Object is modeled below the Input Device Object.

(b) On the BTRM Dependency / Impact Hierarchy, the Application Object is modeled above the Server Object.

(c) On the BTRM Dependency / Impact Hierarchy, the Application Object is dependent upon the Server Object.

(d) When the BTRM Dependency / Impact Hierarchy includes the abstraction of a Shared Data Storage Layer, the Application Object is also modeled above the Shared Data Storage Object.

(e) When the BTRM Dependency / Impact Hierarchy includes the abstraction of the Shared Data Storage Layer, the Application Object is also dependent upon the Shared Data Storage Object.

25. A method as in claims 7 or 23, further including:

- (a) The BTRM Dependency / Impact Hierarchy considers files that contain commands as Program files, and those that do not as Data files.
- (b) The BTRM Dependency / Impact Hierarchy considers Program files as a collection of commands that cause the computer to perform specific operations.
- (c) The BTRM Dependency / Impact Hierarchy considers a Data file as a collection of information that can be structured, or unstructured.
- (d) The BTRM Dependency / Impact Hierarchy considers that Data files are created, accessed, or manipulated by Program files.
- (e) The BTRM Dependency / Impact Hierarchy considers that Data files do not cause the computer to perform operations.

26. A method as in claims 7 or 23, further include, within the BTRM Dependency / Impact Hierarchy Application Object Layer, there are four possible File Dependency / Impact Abstractions for Program and Data files.

27. A method as in claim 26, further including:

- (a) When one Data file receives data from another Data file, the Data file receiving the data is modeled above and dependant upon the Data file from which the data originates.

(b) A Program file is modeled above a Data file when a Program file reads, writes, edits, deletes, or manipulates data in a Data file.

(c) A Data file is modeled above a Program file when a Program file reads, writes, edits, deletes, or manipulates a Data file.

(d) A Program file is modeled above another Program file when one Program file calls or launches another Program file.

28. A method as in claim 7, in which a Shared Data Storage Object represents a grouping of technical infrastructure objects.

29. A method as in claim 28 wherein, on the BTRM Dependency / Impact Hierarchy, the Shared Data Storage Object is modeled below the Application Object.

30. A method as in claims 5 or 28 further including:

(a) The Shared Data Storage Object Layer is considered a Bridged Common Object Layer.

(b) On the BTRM Dependency / Impact Hierarchy, the Shared Data Storage Object Layer contains a discreet Dependency / Impact Hierarchy subset of Model Layers 7 through 13 and therefore, is dependent upon the subset layers within the Shared Data Storage Object Layer.

31. A method as in claim 7, in which a Server Object represents an individual technical infrastructure component.

32. A method as in claim 31, further including:

- (a) When the BTRM Dependency / Impact Hierarchy includes the abstraction of the Shared Data Storage Layer, the Server Object is modeled below the Shared Data Storage Object.
- (b) When the BTRM Dependency / Impact Hierarchy does not include the abstraction of the Shared Data Storage Layer, the Server Object is modeled below the Application Object.
- (c) On the BTRM Dependency / Impact Hierarchy, the Server Object is modeled above the Network Object.
- (d) On the BTRM Dependency / Impact Hierarchy, the Server Object is dependent upon the Network Object.

33. A method as in claim 7, in which a Network Object represents an individual technical infrastructure component.

34. A method as in claim 33, further including:

- (a) On the BTRM Dependency / Impact Hierarchy, the Network Object is modeled below the Server Object.
- (b) On the BTRM Dependency / Impact Hierarchy, the Network Object is modeled above the Security Device Object.
- (c) On the BTRM Dependency / Impact Hierarchy, the Network Object is dependent upon the Security Device Object.

(d) When the BTRM Dependency / Impact Hierarchy includes the abstraction of a Shared Network Object Layer, the Network Object is also modeled above the Shared Network Object.

(e) When the BTRM Dependency / Impact Hierarchy includes the abstraction of the Shared Network Object Layer, the Network Object is also dependent upon the Shared Network Object.

35. A method as in claim 7, in which a Shared Network Object represents a grouping of individual Network Objects.

36. A method as in claim 35 wherein, on the BTRM Dependency / Impact Hierarchy, the Shared Network Object is modeled below the Network Object.

37. A method as in claims 5 or 35 further including:

(a) The Shared Network Object Layer is considered a Bridged Common Object Layer.

(b) On the BTRM Dependency / Impact Hierarchy, the Shared Network Object Layer contains a discreet Dependency / Impact Hierarchy subset of Model Layers 11 through 13 and therefore, is dependent upon the subset layers within the Shared Network Object Layer.

38. A method as in claim 7, in which a Security Device Object represents an individual technical infrastructure component.

39. A method as in claim 38, further including:

(a) On the BTRM Dependency / Impact Hierarchy, the Security Device Object is modeled below the Network Object.

(b) The Security Device Object Layer is the lowest object in the 13 Layer BTRM Dependency / Impact Hierarchy Model and therefore has no defined dependencies.